

Article 11: Fire Protection and Prevention

Division 82: Appendix A through Appendix P

(“Appendix A through Appendix O” added 1-27-2022
by O-21409 N.S.; effective 2-26-2022.)

(Retitled from “Appendix A through Appendix O” to “Appendix A through Appendix P”
on 3-7-2023 by O-21614 N.S.; effective 4-6-2023.)

**§511.8201 Adoption, Non-Adoption or Local Amendment to California Fire Code
Appendix A through Appendix P**

The California Fire Code, Appendix A through Appendix P, are hereby adopted, not adopted, or amended as follows:

- (a) *Appendix A*: Not Adopted
- (b) *Appendix B*: is adopted with modifications as follows:

**TABLE B105.1(1)
REQUIRED FIRE FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3
AND R-4 BUILDINGS AND TOWNHOUSES**

| Fire-Flow Calculation Area (square feet) | Automatic Sprinkler Systems (Design-Standard) | Minimum Fire Flow (gallons per minute)^a | Flow Duration (hours) |
|---|---|---|--|
| 0-3,600 | No automatic sprinkler system | Value in Table B105.1(2) | Duration in Table B105.1(2) at the required fire-flow rate |
| 3,601 and greater | No automatic sprinkler system | Value in Table B105.1(2) | Duration in Table B105.1(2) at the required fire-flow rate |
| 0-3,600 | Section 903.3.1.3 of the California Fire Code or Section 313.3 of the California Residential Code | 1,000 | Duration in Table B105.1(2) at the required fire-flow rate |
| 3,601 and greater | Section 903.3.1.3 of the California Fire Code or Section 313.3 of the California Residential Code | 50% of the value in Table B105.1(2) | Duration in Table B105.1(2) at the original fire-flow rate |

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m.

a. The reduced fire-flow rate shall not be less than 1,000 gallons per minute.

TABLE B105.2
TABLE B105.2 REQUIRED FIRE FLOW FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

| Automatic Sprinkler Systems (design-standard) | Minimum Fire-Flow (gallons per minute) | Flow Duration (hours) |
|--|--|---|
| No automatic sprinkler system | Value in Table B105.1(2) | Duration in Table B105.1(2) |
| Section 903.3.1.1 of the California Fire Code | 50% of the value in Table B105.1(2) ^a | Duration in Table B105.1(2) at the original flow rate |
| Section 903.3.1.2 of the California Fire Code | 50% of the value in Table B105.1(2) ^a | Duration in Table B105.1(2) at the original flow rate |

For SI: 1 gallon per minute = 3.785 L/m

a. The reduced fire-flow rate shall not be less than 1,500 gallons per minute.

(c) *Appendix BB*: Adopted

(d) *Appendix C* is adopted with modifications as follows:

TABLE C102.1
REQUIRED NUMBER AND SPACING OF FIRE HYDRANTS^f

| FIRE-FLOW REQUIREMENT(gpm) | MINIMUM NUMBER OF HYDRANTS | AVERAGE SPACING BETWEEN HYDRANTS^{a, b, c,} (feet) | MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT^d |
|-----------------------------------|-----------------------------------|---|--|
| 1,750 or less | 1 | 500 | 250 |
| 1,751–2,250 | 2 | 450 | 225 |
| 2,251–2,750 | 3 | 450 | 225 |
| 2,751–3,250 | 3 | 400 | 225 |
| 3,251–4,000 | 4 | 350 | 210 |
| 4,001–5,000 | 5 | 300 | 180 |
| 5,001–5,500 | 6 | 300 | 180 |
| 5,501–6,000 | 6 | 250 | 150 |
| 6,001–7,000 | 7 | 250 | 150 |
| 7,001 or more | 8 or more ^e | 200 | 120 |

For SI: 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.

- a. Reduce by 100 feet for dead-end streets or roads.
- b. Where streets are provided with median dividers that cannot be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis.
- c. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.
- d. Reduce by 50 feet for dead-end streets or roads.
- e. One hydrant for each 1,000 gallons per minute or fraction thereof.
- f. The fire code official is authorized to modify the location, number and distribution of fire hydrants based on site-specific constraints and hazards.

(e) **Appendix CC:** Adopted

(f) **Appendix D** is adopted with modifications as follows:

- (1) Local Amendment: Section D103.5, Fire Apparatus Access Road Gates, is amended to read follows:

Gates securing the fire apparatus access roads shall comply with all of the following criteria:

- (a) The minimum gate width shall be 13 feet (3964 mm)
- (b) Gates shall be of the horizontal swing, horizontal slide, vertical lift or vertical pivot type.
- (c) Construction of gates shall be of materials that allow manual operation by one person.
- (d) Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
- (e) Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the *Fire Code Official*.
- (f) Methods of locking shall be submitted for approval by the *Fire Code Official*.
- (g) Electric gate operators, where provided, shall be listed in accordance with UL 325.

(h) Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

(2) Local Amendment. Section D103.6, Signs, is amended to read as follows:

Where required by the *Fire Code Official*, fire apparatus access roads shall be marked with permanent NO PARKING-FIRE LANE signs complying with California Vehicle Code Section 22500.1. Signs shall be posted on one or both sides of the fire apparatus road as required by Section D103.6.1 or D103.6.2.

(3) Not Adopted. California Fire Code, Appendix D, section D104.1, Buildings Exceeding Three Stories or 30 Feet in Height, is not adopted.

(4) Local Addition. Appendix D, section D106.2.1, Multiple-Family Residential Developments with significant fire risk, is added as follows:

Residential developments of more than 30 dwelling units located in a state responsibility area (SRA) or a Very High Fire Hazard Severity Zone, shall be provided with two separate and approved fire apparatus access roads regardless of whether they are equipped with an approved automatic sprinkler system.

(5) Adopted. Local Amendment. Section D107.1, One or two-family dwelling residential developments, is amended to read as follows: Developments of one or two-family dwellings where the number of dwelling units exceeds 30 shall be provided with two separate and approved fire apparatus access roads.

Exceptions:

(1) Where there are more than 30 dwelling units, not located in a state responsibility area (SRA) or a Very High Fire Hazard Severity Zone, accessed from a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with section 903.3.1.1, 903.3.1.2 or 903.3.1.3, access from two directions shall not be required.

- (2) The number of dwelling units accessed from a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the *Fire Code Official*.
 - (A) *Appendix E*: Not Adopted
 - (B) *Appendix F*: Not Adopted
 - (C) *Appendix G*: Not Adopted
 - (D) *Appendix H*: Not Adopted
 - (E) *Appendix I*: Not Adopted
 - (F) *Appendix J*: Not Adopted
 - (G) *Appendix K*: Not Adopted
 - (H) *Appendix L*: Not Adopted
 - (I) *Appendix M*: Not Adopted
 - (J) *Appendix N*: Not Adopted
 - (K) *Appendix O*: Not Adopted
 - (L) *Appendix P*: Not Adopted

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